

# HEAVY METAL LEAD GUITAR

Volume 1  
by Troy Stetina

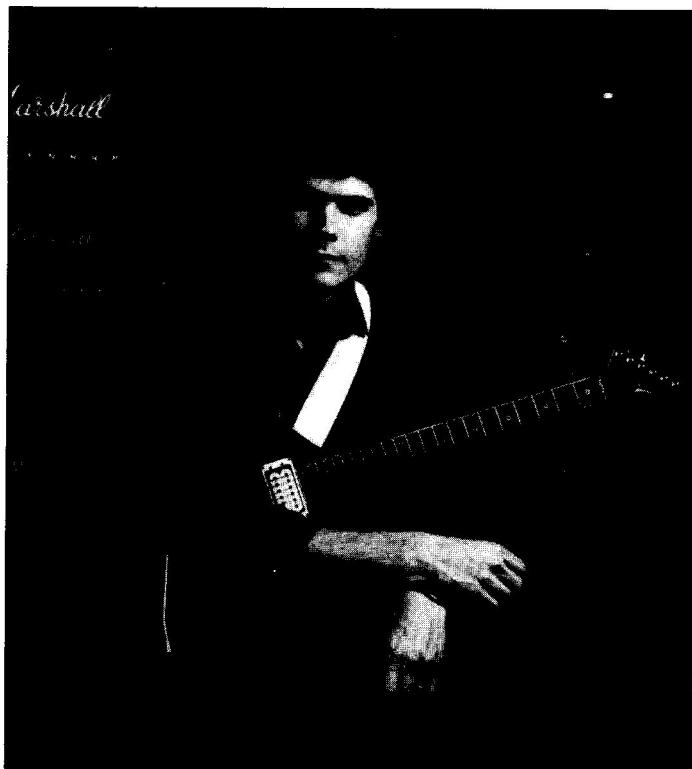
## CONTENTS

About the Author .....	2	Special techniques .....	26
Foreword .....	2	the pre-bend, the slow-bend, the rake, staccato	
How to use this book .....	3	Lazy triplets .....	27
Introduction .....	4	Improvising and phrasing .....	30
Timing and rhythm notation .....	4	FROM THE HEART (Solo #3) .....	32
<b>PART I</b>			
The minor pentatonic scale .....	6	<b>PART IV</b>	
The hammer-on and pull-off .....	7	Notes on the fifth string .....	33
The two-fret bend and release .....	8	The minor pentatonic form with the root on the fifth string .....	33
Rock clichés .....	10	Understanding scale basics .....	34
Vibrato .....	11	The tones of the minor pentatonic scale .....	35
Rests .....	11	The natural minor scale .....	36
Rhythmic patterns .....	12	Speed exercises for "The Heavy Side" .....	38
Riffs in the minor pentatonic scale .....	13	THE HEAVY SIDE (Solo #4) .....	39
Special techniques .....	14	<b>PART V</b>	
muting, artificial harmonics, the "blues" bend, the slide		Picking mechanics for crossing strings .....	40
Riffs using the special techniques .....	15	Contouring scales .....	41
OPEN FIRE (Solo #1) .....	16	Using scale contours in runs .....	44
<b>PART II</b>			
Notes on the sixth string .....	17	Rhythmic patterns .....	44
Changing keys .....	17	The dorian minor scale .....	45
The octave position .....	18	Faster notes .....	46
The minor pentatonic extention .....	18	The three and four-fret bend .....	46
Picking mechanics for sixteenth note rhythms .....	19	Speed exercises for "Danger Ahead" .....	46
review, combining rhythms with riffs		DANGER AHEAD (Solo #5) .....	47
Speed exercises for "To The Stage" .....	21	<b>PART VI</b>	
TO THE STAGE (Solo #2) .....	22	Natural harmonics .....	48
<b>PART III</b>			
The blues scale .....	23	Using the vibrato bar .....	50
The one-fret bend .....	23	Right-hand fretting .....	52
Picking mechanics for triplets .....	24	Speed exercises for "Into The Spotlight" .....	53
		INTO THE SPOTLIGHT (Solo #6) .....	54

**HL**  
Hal Leonard Publishing Corporation

7777 West Bluemound Road P.O. Box 13819 Milwaukee, Wisconsin 53213

# ABOUT THE AUTHOR



**Photo by Robert Fisher**

After achieving a gold and silver medal in the 1975 National bicycle Road and Track Championships and another silver medal in the 1978 National Road Championships, Troy Stetina turned from athletics to pursue music full time. Specializing in classically influenced heavy metal, Troy has taught private lessons for several years in Indianapolis, and has recorded and performed with rock bands in the area. He is currently the rock guitar instructor at the Wisconsin Conservatory of Music in Milwaukee.

## FOREWORD

The **Heavy Metal Series** is designed to teach you the techniques used by **Van Halen, Randy Rhoads, Yngwie Malmsteen, George Lynch, Jake E. Lee, and other heavy metal guitarists.**

Lead Volumes 1 and 2 offer a comprehensive step-by-step lead guitar method to teach you everything you need to know about soloing.

Each technique is incorporated into **eleven solos** which increase in difficulty throughout the method. The last section in Volume 2 features the entire lead track to the heavy metal instrumental, "**Babylon.**"

Many guitarists find that after learning a few of the basics of soloing (the blues scale and several bending techniques) that all of their riffs and solos begin to sound alike. They become bored with their playing and wind up in a rut. To avoid these ruts you must expand your knowledge of the guitar and develop techniques that enhance your ability instead of limit it.

With a little work and this lead method, you can get out of or avoid these kinds of ruts, and your playing will be more expressive, more creative, and more fun.

# HOW TO USE THIS BOOK

**Heavy Metal Lead Guitar Volume 1** is a companion to Rhythm Guitar Volumes 1 and 2 in the Heavy Metal Series.

Those of you who already have some years of experience and are familiar with reading rhythm notation may begin with the Lead Method. However, if you find that you are having trouble reading rhythms, you should refer back to the section of **Rhythm Guitar** that covers rhythms in more detail.

This book contains six solos in six sections; each section preparing you for its accompanying solo. The solos, “**Open Fire**,” “**To The Stage**,” “**From The Heart**,” “**The Heavy Side**,” “**Danger Ahead**,” and “**Into The Spotlight**,” become progressively more difficult throughout the method.

**Volume 2** completes the **Heavy Metal Lead Guitar Method** and features five more solos as well as the entire lead track to the song “**Babylon**.”

Always make sure that you are in tune! If your guitar has a floating vibrato system, you should repeat the tuning process several times. When you see the symbol  ,

First, listen to the example on the recording several times, while following along with the written music.

Then, practice very slowly by yourself until you can play evenly and accurately. Speed up as you feel comfortable, but it is more important to play evenly than it is to play fast.

If the example uses a count, play along with the example on the recording.

Each solo begins with an introduction followed by the lead section. After that, the rhythm track repeats – but this time without the lead. After you have learned a solo, practice playing the lead along with the rhythm track.

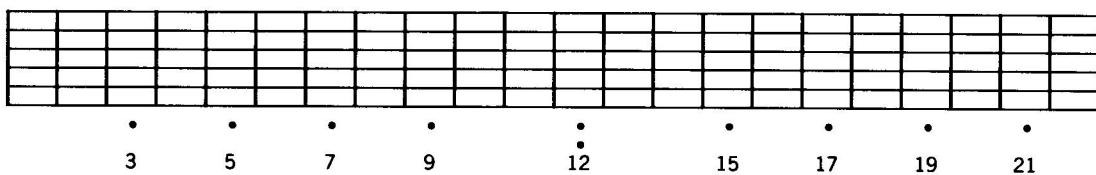
# INTRODUCTION

Music in this book is written in tablature (TAB). If you not familiar with reading TAB, please refer to **Rhythm Guitar Volume 1**.

The fingers of the left hand are numbered as follows: index finger — 1  
middle finger — 2  
ring finger — 3  
little finger — 4

Downstrokes of the pick are indicated by ▨. Upstrokes are indicated by ▩. These symbols will appear above the staff. All other symbols will be explained as they appear in the book.

To enable you to read tablature more quickly and easily, you can memorize the fret numbers of the dots on the neck.



This is especially important when reading notes high on the neck. For example, to find fret number 18 quickly, look to the second dot above 12 (the double dots). This is fret 17. The 18th fret is one higher.

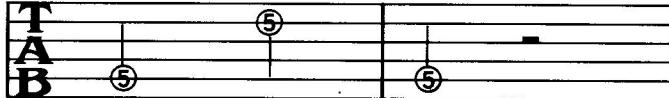
## TIMING AND RHYTHM NOTATION

Rhythm notation will be covered briefly to summarize the basic notation learned in **Rhythm Guitar Volume 1 and 2**.

Whole notes and rests:  
four beats each:



Half notes and rests:  
two beats each:



Quarter notes and rests:  
one beat each:

A tablature staff for guitar with three strings labeled T, A, and B. It shows a vertical bar at the beginning, followed by two '5' notes on string A, a rest, another '5' note on string A, and a final rest.

Eighth notes and rests:  
one-half beat each  
(or two notes per beat):

A tablature staff for guitar with three strings labeled T, A, and B. It shows a vertical bar, followed by a '5' note on string A, a rest, another '5' note on string A, a rest, a '5' note on string A, a rest, and a final '5' note on string A.

Sixteenth notes and rests:  
one-fourth beat each  
(or four notes per beat).

A tablature staff for guitar with three strings labeled T, A, and B. It shows a vertical bar, followed by four '2' notes on string A, a rest, four '2' notes on string A, a rest, four '2' notes on string A, a rest, and four '2' notes on string A.

Play the following review exercises keeping a strong, steady beat with your foot. One each count, your foot should be down, and on each & your foot should be up. If you have trouble with this, refer to Rhythm Guitar Volume 1 of this series.

Four review exercises for guitar rhythm, numbered 1 through 4. Each exercise includes a metronome mark (120 BPM), a tablature staff for guitar (T-A-B), and a count below it.

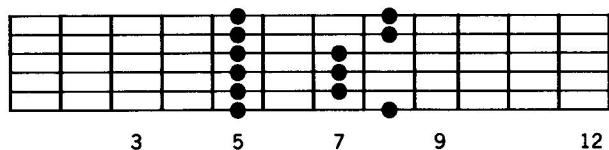
- Exercise 1:** Tablature shows a vertical bar, followed by a '5' on string A, a rest, another '5' on string A, a rest, a '5' on string A, a rest, and a final '5' on string A. Count: 1 2 3 4 (1 2) (3 4) 1 2 3 4 (1 2) (3 4)
- Exercise 2:** Tablature shows a vertical bar, followed by a '5' on string A, a rest, another '5' on string A, a rest, a '5' on string A, a rest, and a final '5' on string A. Count: 1 2 3 4 1 & 2 & 3 & 4
- Exercise 3:** Tablature shows a vertical bar, followed by a '5' on string A, a rest, another '5' on string A, a rest, a '5' on string A, a rest, and a final '5' on string A. Count: 1 & 2 (& 3) & 4 1 & 2 (& 3) & 4
- Exercise 4:** Tablature shows a vertical bar, followed by a '5' on string A, a rest, another '5' on string A, a rest, a '5' on string A, a rest, and a final '5' on string A. Count: 1 e & a 2 e & a 3 e & a 4 e & a 1 e & a 2 e & a 3 e & a 4

# PART I

# THE MINOR PENTATONIC SCALE

The most common pattern used for soloing is the minor pentatonic scale. Below, the scale is shown in the key of A. Notice that the first note of the scale is the “A” note, which is the root of both the A bar chord at the fifth fret as well as the A scale.

## A minor pentatonic



 **ascending (up)**

**descending (down)**

Fingerstyle guitar tablature for the title track. The tab shows six strings (T, A, B) across six measures. The first measure starts with a bass note '5' on the T string. The second measure begins with a '5' on the A string. The third measure starts with a '5' on the B string. The fourth measure starts with a '5' on the A string. The fifth measure starts with a '5' on the B string. The sixth measure starts with a '5' on the A string. Fingerings are indicated below the strings: 1-4-1-3-1-3 for the first measure, 1-3-1-3-1-3 for the second, 1-3-1-3-1-3 for the third, 1-3-1-3-1-3 for the fourth, 1-3-1-3-1-3 for the fifth, and 1-4-1 for the sixth.

Listen to the tape several times to memorize how each riff sounds; then play over the notes and memorize their pattern. Where the asterisk (\*) appears, change strings using the same finger for both notes. Roll your finger off of one string and onto the next instead of lifting it off of the fretboard. This will allow you to change faster and sound smoother.

Guitar tablature for an Am chord progression. The top line shows a 6th string Am chord (T-A-B) followed by a 5th string Am chord (T-A-B). The bottom line shows a 6th string Am chord (T-A-B) followed by a 5th string Am chord (T-A-B). Fingering: 3 3 1 3 3 1 3 1 3 1 4 1.

**Am**

7

T 5 8 5 7 5 7 5 8 5 7 5

A 7 5 7 5 7 5 7 5 7 5 7 5

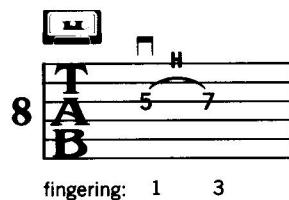
B 4 1 3 1 3 1 4 1 3 1

fingering: 1 4 1 3 1 3 1 4 1 3 1

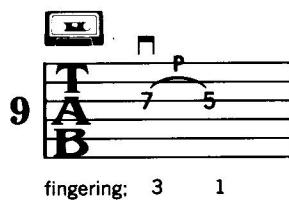
Note that you have memorized both the sound and the pattern of notes for each riff, practice them tapping your foot on each downbeat to get the feel of the rhythm.

# THE HAMMER-ON AND PULL-OFF

Play the fifth fret, third string with your first finger. Then, hammer your third finger down on the seventh fret without picking. An "H" with a  $\smile$  or  $\frown$  indicates a hammer-on.



A pull-off is the opposite of a hammer-on. Place your third finger on the seventh fret, and your first finger on the fifth fret. Pick the seventh fret, then pull your third finger down and off of the string to sound the fifth fret. A "P" with a  $\smile$  or  $\frown$  indicates a pull-off.



Do not confuse the hammer-on/pull-off symbols with the tie. Ties also use this symbol, but without an "H" or "P" and ties only connect notes that are both at the same fret.

Practice hammer-ons and pull-offs in the riffs below.

10

11

12

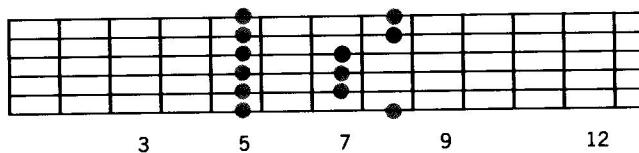
13

14

15

# THE TWO-FRET BEND AND RELEASE

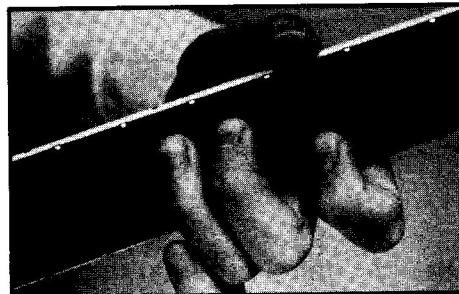
In this scale pattern, the two most commonly bent notes are:



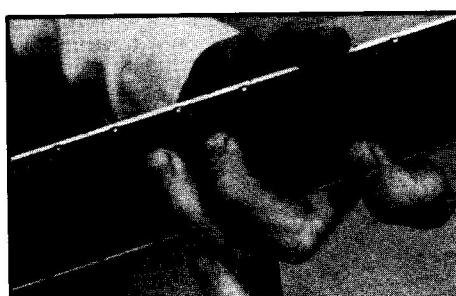
Below, the first number is the fret that you start on, the arrow indicates a bend, and the number in parenthesis is the pitch that the bend will reach.

Begin on the third string with your third finger on the seventh fret and your second finger close behind it to help push up the string. Put your first finger on the fifth fret, second string.

Push the string up until its pitch is the same as the second note. If your bend is accurate, the two notes will sound the same because the ninth fret, third string is the same note as the fifth fret, second string.



Do the following bend in the same way. Notice that the tenth fret, second string is the same pitch as the fifth fret, first string. If your bend is accurate, the pitch of both strings will be the same. Practice these bends until you get a feel for how far to bend the string for a two-fret bend.



A release is the opposite of a bend. After a note is bent, it is released by returning it to the original pitch. The release is shown by an arrow down.

Practice two-fret bends and releases in the following exercises. Make your bends sound like those on the cassette.

**19**

TAB notation for exercise 19. The staff shows a note at the 5th fret, followed by a bend arrow pointing to the 7th fret, then another note at the 7th fret with a circled 5 above it. Fingering: 1, 3, 3(2), 1.

**20**

TAB notation for exercise 20. The staff shows a note at the 5th fret, followed by a bend arrow pointing to the 8th fret, then another note at the 8th fret with a circled 5 above it. Fingering: 1, 3, 3(2), 1.

**21**

TAB notation for exercise 21. The staff shows a note at the 5th fret, followed by a bend arrow pointing to the 8th fret, then another note at the 8th fret with a circled 5 above it. This is followed by a bend arrow pointing to the 5th fret, then another note at the 5th fret with a circled 5 above it. Fingering: 1, 3, 3(2), 1, 3, 3(2), 1, 3, 3(2), 1.

When the note stem is on the number in parenthesis (which is the destination of the bend) instead of the first number (which is the fret that the bend starts on), this indicates an immediate bend. Pick the first note and bend up immediately. In this case, the number that the bend starts on will be shown in smaller type.

**22**

TAB notation for exercise 22. The staff shows a note at the 7th fret with a small 7 above it, followed by a bend arrow pointing to the 9th fret, then another note at the 9th fret with a circled 5 above it. Fingering: 3(2), 1, 3, 1.

**23**

TAB notation for exercise 23. The staff shows a note at the 7th fret with a small 7 above it, followed by a bend arrow pointing to the 9th fret, then another note at the 9th fret with a circled 5 above it. This is followed by a bend arrow pointing to the 5th fret, then another note at the 5th fret with a circled 5 above it. Fingering: 3(2), 1, 3, 1, 3(2).

**24**

TAB notation for exercise 24. The staff shows a note at the 8th fret with a small 8 above it, followed by a bend arrow pointing to the 10th fret, then another note at the 10th fret with a circled 5 above it. This is followed by another bend arrow pointing to the 8th fret, then another note at the 8th fret with a circled 5 above it. This is followed by another bend arrow pointing to the 10th fret, then another note at the 10th fret with a circled 5 above it. This is followed by another bend arrow pointing to the 5th fret, then another note at the 5th fret with a circled 5 above it. This is followed by another bend arrow pointing to the 8th fret, then another note at the 8th fret with a circled 5 above it. This is followed by another bend arrow pointing to the 5th fret, then another note at the 5th fret with a circled 5 above it. Fingering: 3(2), 1, 3(2), 1, 3(2), 1, 3(2), 1, 3(2), 1, 3(2), 1, 3(2), 1.

# ROCK CLICHÉS

The following patterns are so commonly used in solos that they are sometimes called rock clichés. These short groups of notes are often used as the building blocks for longer lead phrases.

In exercise 25, do not let the bent string continue to ring with the other notes. Remove the pressure of your third finger off of the fretboard as you pick the second note. Also, lay your first finger flat over the first and second strings with the top end of that finger touching the third string. When the third string moves back to its unbent position, it should be muted by the first finger. Quiet the lower sounding strings with your right hand. Let the second and third notes ring together.

25

fingering: 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 1 1

In exercise 26, bend immediately using your third finger (with the second finger next to it to help push); then release. As you release the bend, lift up your second finger so that it won't get in the way of the pull-off to the first finger.

26

fingering: 3(2) 3 1 3(2) 3 1 3(2) 3 1 3(2) 3 1

In exercise 27, bend up the first note, and then, without releasing that bend, pick the next note. Let both strings ring together.

27

fingering: 3(2) 4 3(2) 4

Exercise 28 is very similar to 27, except that the notes used are one string higher and both on the same fret. After both notes ring together, pick the last note (still bent) and then release.

28

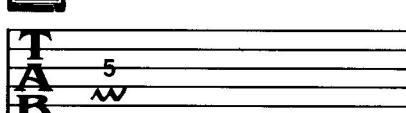
fingering: 3(2) 4 3(2) 3(2) 4 3(2)

Practice each cliché until they sound like those on the cassette.

# VIBRATO

Vibrato is a rapid series of small bends and releases. It not only makes the note sound more exciting, but it also gives much more sustain. Pivot your hand as shown in the photos to make the bends. The side of the knuckle of your first finger should be pressing against the guitar. Practice slowly making sure that each bend is fully released. Vibrato will be indicated by the symbol .

29



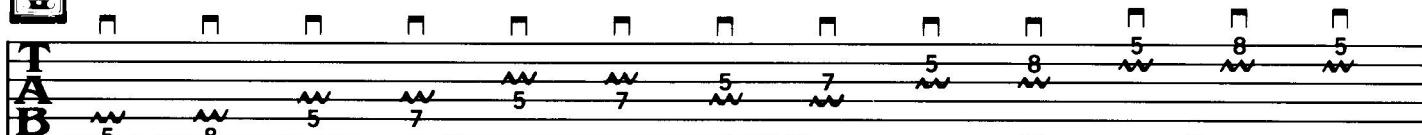
fingering: 1



First, try to get at least three or four slight bends and releases. With practice, your vibrato will get faster and your sustain will increase to the point where, eventually, you can hold a note with vibrato for any length of time.

Practice vibrato on each note in the minor pentatonic scale. To achieve vibrato on the sixth string, pull down to bend. For vibrato on the first string, push up. All of the other strings may be either pushed or pulled.

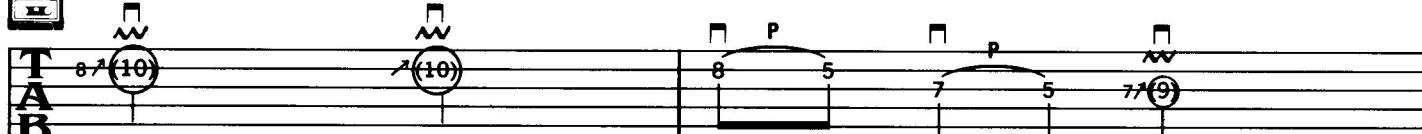
30



fingering: 1 4 1 3 1 3 1 3 1 3 1 3 1

When vibrato is placed on a note already bent, release only slightly then quickly bend back and release slightly again. Continue doing this, trying to keep the small bends and releases all centered around the original bent note. This is difficult and will require time to develop. At first, try to bend and release slowly at least two or three times.

31

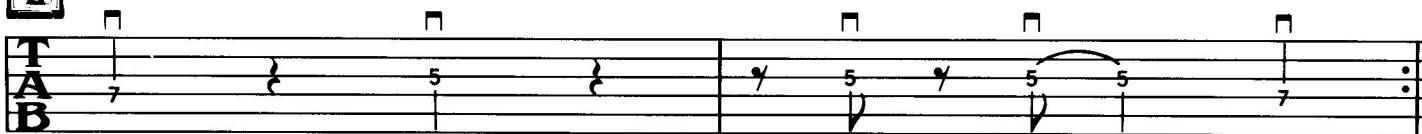


fingering: 3(2) 3 1 3 1 3(2)

# RESTS

Stop and hold all strings with the rear side of your right hand for the duration of all rests. (See Rhythm Guitar Volume 1)

32



count: 1 2 3 4 | 1 & 2 & 3 4

# RHYTHMIC PATTERNS

Often a simple riff is made to sound more interesting by the use of common rhythmic patterns. Listen to exercise 33 to get the feel of the rhythm. Then practice it tapping steadily with your foot.

33

A guitar tab showing a repeating three-note pattern on the A string (5th string). The pattern consists of an eighth note followed by a sixteenth note and another eighth note. This pattern repeats three times. The tab includes a metronome mark at 120 BPM, a staff with T, A, and B strings, and a fretboard diagram. Below the tab is a count: (1 & 2) (& 3 &) 4.

When a group of notes lasting one and a half beats is repeated, it will begin first on the downbeat, then the upbeat, downbeat, upbeat, etc. (See Rhythm Guitar Volume I, Part III.)

Also, notes that fall on a downbeat are naturally emphasized more to the ear. So, even though you are simply repeating the same three notes, the rhythm naturally accents different notes on each downbeat.

34

A guitar tab for exercise 34, similar to exercise 33 but with accents on the downbeats. The pattern is an eighth note followed by a sixteenth note and another eighth note, repeated three times. The tab includes a metronome mark at 120 BPM, a staff with T, A, and B strings, and a fretboard diagram. Below the tab is a count: (1 & 2) (& 3 &) 4.

This technique is often used with the two-measure rhythm below.

35

A guitar tab for exercise 35, featuring a two-measure rhythm pattern. It starts with an eighth note on the A string (5th string), followed by a sixteenth note on the B string (6th string), and then an eighth note on the A string again. This pattern repeats for two measures. The tab includes a metronome mark at 120 BPM, a staff with T, A, and B strings, and a fretboard diagram. Below the tab is a count: (1 & 2) (& 3 &) (4 & 1) (2 & 3) 4.

It is important that you tap a steady beat with your foot in the riffs below or this rhythm effect will be somewhat lost.

36

A guitar tab for exercise 36, continuing the two-measure rhythm pattern from exercise 35. It shows the same sequence of notes (eighth note on A, sixteenth note on B, eighth note on A) repeated four times. The tab includes a metronome mark at 120 BPM, a staff with T, A, and B strings, and a fretboard diagram. Below the tab is a count: (1 & 2) (& 3 &) (4 & 1) (2 & 3) 4.

37

A guitar tab for exercise 37, continuing the two-measure rhythm pattern. It shows the same sequence of notes (eighth note on A, sixteenth note on B, eighth note on A) repeated four times. The tab includes a metronome mark at 120 BPM, a staff with T, A, and B strings, and a fretboard diagram. Below the tab is a count: (1 & 2) (& 3 &) (4 & 1) (2 & 3) 4.

# RIFFS USING THE MINOR PENTATONIC SCALE

After you have memorized the sound and the note pattern of a riff, try tapping your foot with the beat while you practice it.

38

Am

fingering: 3(2) 1 1 3 3(2) 4 1 3(2) 3 1 3

39

Am

fingering: 3 P 1 H 3 1 3 1 3 1 3 1 3(2)

40

Am

fingering: 1 1 1 3 1 H 3 1 3(2) 3 1 3

41

Am

fingering: 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 4 3(2)

# SPECIAL TECHNIQUES

## Muting

Muting is achieved by laying the bottom side of your right hand over the string near the bridge saddles. (See Rhythm Guitar Volume I, Part III) Muted notes will be indicated by an "x" placed over or below each number.

Guitar tablature example 42. The tab shows three strings (T, A, B) across six frets. Fret numbers are above the strings. Muted notes are indicated by an 'x' placed over or below the note heads. Fingerings below the strings are: 5, 8, x, x, 5, 7, 5, 7, x, x, 5, 8, x, x, 5, 8, x, x. The tab includes a tempo mark (♩ = 120), a dynamic (♩), and a measure number 42.

## Artificial Harmonics

Artificial harmonics make the guitar sound as if it is screaming. They are also called pick harmonics or false harmonics.

Hold your pick fairly close to the tip and turn it so that part of your thumb slightly touches the string. After picking, move your hand away immediately. Artificial harmonics will be indicated by a small "A" with the fret number in a diamond.

Guitar tablature example 43. The tab shows three strings (T, A, B) across six frets. Artificial harmonics are indicated by a small 'A' inside a diamond shape at the 7th fret of the A string. Fingerings below the strings are: 7, 7(9), 7, 5, 1, 3(2), 3, 1. The tab includes a tempo mark (♩ = 120), a dynamic (♩), and a measure number 43.

You can use artificial harmonics whenever you think they sound good. It is not necessarily important that you play them exactly where they are used on the solos.

## The Slide

Play the note below and slide your finger down the neck and off of the string. Lift your finger off the fretboard after you slide down several frets.

Guitar tablature example 44. The tab shows three strings (T, A, B) across six frets. A slide is indicated by a curved arrow starting from the 7th fret of the B string and pointing downwards. The tab includes a tempo mark (♩ = 120) and a measure number 44.

To slide up to a note, do the exact opposite. Pick the string as you touch the fretboard, and then slide up to the note. Make sure that your hand is moving as you touch the fretboard, or you will hear an unwanted note first, and then the slide up.

Guitar tablature example 45. The tab shows three strings (T, A, B) across six frets. A slide is indicated by a curved arrow starting from the 7th fret of the B string and pointing upwards. The tab includes a tempo mark (♩ = 120) and a measure number 45.

## The “Blues” Bend

The “blues” bend is a very slight bend at the end of a note. Because it is short and subtle, it isn’t particularly obvious but it does give a more “bluesy” feel. Below, the bend is shown with a small arrow. Pull the string down to bend. Listen to the difference between the notes played with no bend and with the bend.

Guitar tablature for exercise 46. The tab shows a single string with two notes: a 5 followed by a 7. A small arrow points to the 7, indicating a blues bend. The tab includes a tuning box at the top left and a measure number 46.

These bends will not be indicated in the following riffs and solos, as you can give the music your own interpretation. You can use these bends wherever you think that they sound good.

## RIFFS USING THE SPECIAL TECHNIQUES

The two-measure riffs below make use of muting, artificial harmonics, slight “blues” bends, and slides. Notice that some of the phrases have notes that lead into the first measure. These notes are called pick-up notes. (See Rhythm Guitar Vol 1, Part II.)

Guitar tablature for exercise 47. The tab shows a riff in Am. It includes muting (m), artificial harmonics (diamonds), and slides. Fingerings are indicated below the strings: 3, 7, 5, 7, 5, 7(9), 1, 5, 8, 7, 7(9). The tab includes a tuning box at the top left and a measure number 47.

Guitar tablature for exercise 48. The tab shows a riff in Am. It includes muting (m) and artificial harmonics (diamonds). Fingerings are indicated below the strings: 1, 5, 5, 8, 5, 7, 5, 7, 5, 7(9), 1, 3(2), 3, 1, 3, 1, 3(2). The tab includes a tuning box at the top left and a measure number 48.

Guitar tablature for exercise 49. The tab shows a riff in Am. It includes muting (m) and artificial harmonics (diamonds). Fingerings are indicated below the strings: 3, 5, 7, 8(9), 5, 8(10), 10, 5, 7, 5, 7, 5, 7, 5, 7, 5, 7. The tab includes a tuning box at the top left and a measure number 49.

**“Open Fire”** uses eight phrases, each two measures long, except for the last phrase, which is three measures and extends on into the repeat of the introduction. Make sure that you practice each phrase separately before you try putting them all together. The phrases are numbered below.

On the cassette you'll hear the introduction followed by the solo. After the solo the rhythm track repeats the introduction and solo sections — this time without the lead guitar. After you have the solo down, practice playing it over this rhythm track. You can also try substituting different phrases that you have learned or try making up and using some of your own.

# **OPEN FIRE**

**(Solo #1)** 

**Am 12**

fingering: 3 1 1 3 1 1 3(2) 3 1 1 3(2)

**ring together**

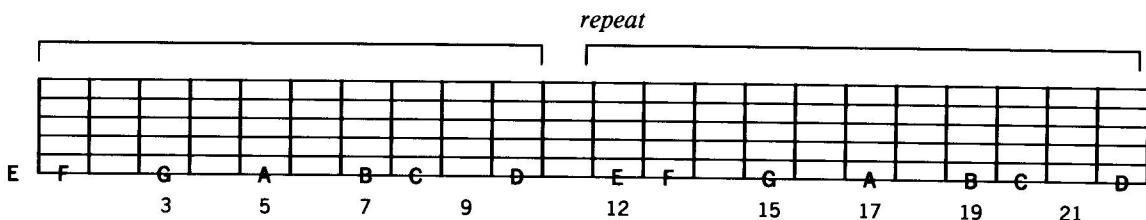
**slide up to an indefinite point**

(Rhythm track begins repeat of intro.)

# PART II

## NOTES ON THE SIXTH STRING

To play in different keys, you must know the names of the notes on the sixth string. The pattern of notes repeats at the twelfth fret. The names are the same but all are one octave higher.

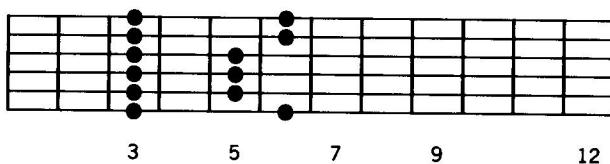


A **sharp (#)** raises a note one fret and a **flat (b)** lowers a note one fret. Therefore, in the above tab, each fret space that is not labelled can actually have two names. For example, the note at the fourth fret can be called either G# or Ab.

## CHANGING KEYS

To solo in a different key, simply slide the scale patterns up or down the neck, placing the root note of the scale pattern on the note of the new key. The riffs below use the minor pentatonic scale pattern in different keys.

**G minor  
pentatonic**

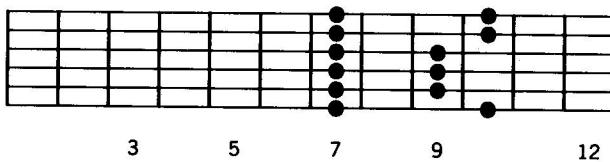


50

**Gm**

fingering: 3 3 3 1 3 1 3(2) 1 1 3(2)

**B minor  
pentatonic**



51

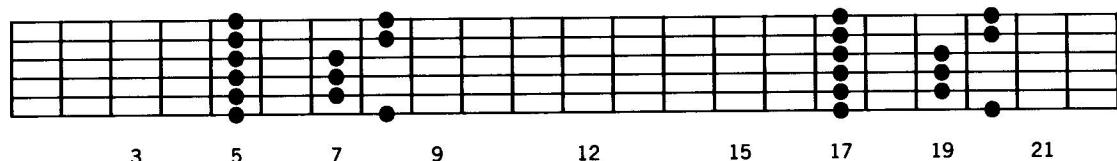
**Bm**

fingering: 3 1 3 1 3 1 3 3 1 3 3 1

## THE OCTAVE POSITION

Another common form for the minor pentatonic scale is called the octave position. If you move any note up twelve frets, it will be the same note name, but one octave higher. Therefore, the scale form will be repeated identically twelve frets higher.

### A minor pentatonic



The following riff uses the octave position in the key of Am.

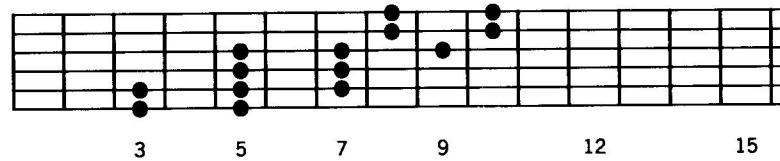
51

fingering: 2 1 3 1 3(2) 3(2) 3 1 2 2 1 2

# THE MINOR PENTATONIC EXTENTION

This form is sometimes called the diagonal form because it moves diagonally through several different positions. A line between fret and fingering numbers indicates a slide between notes. A slide may or may not be picked.

## A minor pentatonic



**53**

ascending      descending

T      5 7 9 8 10      10 8 10 8

A      3 5 7 5 7      9 7 5 7 5

B      3 5 3 5 7      7 5 3 5 3

fingering: 1 3 1 3-3 1 3 1 3-3 1 3 1 3 1 3-3 1 3 1 3-3 1 3 1 3 1 3 1 3

Play the following riff using this extended form.

# PICKING MECHANICS FOR SIXTEENTH NOTE RHYTHMS

Good right-hand technique is very important for playing fast, smooth runs as in solos by Yngwie Malmsteen, Randy Rhoads, and Van Halen. This section deals with developing the consistent picking format that you need to master fast and smooth picking. Consistent alternating picking will be covered in more detail in Part V, as well as in speed exercises throughout Volumes 1 and 2.

## Review

Below, alternate picking consistently making sure that each beat begins with a downstroke.

55

When any two sixteenth notes are tied (joined together), they may be substituted with an eighth note. Miss the string for the tied note, but do not alter the picking pattern of the other notes. (See Rhythms, Guitar Vol 1, Part V, and Vol 2, Part IX.)

**56**

miss

**57**

miss

A musical score for a guitar. The top staff shows a metronome mark of 120 BPM and a repeating eighth-note pattern (V) over four measures. The bottom staff shows a bass line with notes on the A, D, G, and B strings.

**58**

*miss*

Three tied sixteenth notes are  $\frac{3}{4}$  of a beat and may be substituted with a dotted eighth note ( $\text{♪} \text{♪} \text{♪} = \text{♪.}$ ).

**59**

miss miss

**60**

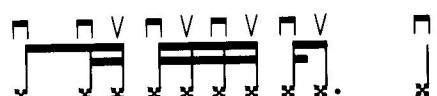
miss miss

The image shows a musical score for electric guitar. The top staff is a standard staff with vertical stems and note heads. The first note is a V, followed by a series of eighth-note pairs (V, V), then a single eighth note (V), and finally another series of eighth-note pairs (V, V). The bottom staff is a Tablature (TAB) diagram, consisting of six horizontal lines representing the strings of the guitar. The notes are represented by vertical tick marks on these lines. The pattern starts with a V on the 6th string, followed by a V on the 5th string, then a V on the 4th string, and so on, repeating the sequence across all six strings.

## Combining Rhythms With Riffs

First, a rhythm is shown, followed by a riff. Practice the rhythm to get the feel of the picking. The riff is picked exactly the same.

61

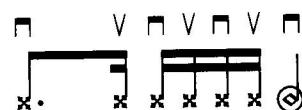


**Am**

**TAB**

fingering: 1 4 1 4 1 1 3 1 3

62

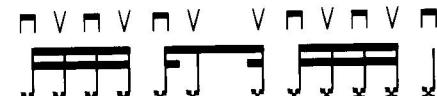


**Am**

**TAB**

fingering: 3 1 3 1 3 1 3

63



**Am**

**TAB**

fingering: 3 1 3 1 3 1 4 1 3 1

If you skip picking a note because it is a hammer-on, pull-off, bend, or release, miss the string with the pick for that note but do not alter the picking pattern of any other notes. The symbol **—** means to repeat the preceding figure.

4

**Am**

**TAB**

fingering: 4 1 1 1

**TAB**

fingering: 4 1 1 1

5

**Am**

**TAB**

fingering: 3(2) 3 1

**TAB**

fingering: 3(2) 3 1

66

**Am**

**TAB**

fingering: 4 1 4 1

**TAB**

fingering: 4 1 3 1

# **SPEED EXERCISES FOR “TO THE STAGE”**

Listen to each exercise on the cassette and memorize the pattern of the notes. Finally, concentrate on the right-hand picking.

Each time you practice, begin slowly and evenly, gradually increasing up to top speed. Push the speed up just a little more and try to smooth it out; then slow back down. Play a pattern four times, then raise the position up one fret and repeat the pattern four more times. Continue doing this all the way up and back down the fretboard.

**67** **Gn**

fingering: 1 3 1 2 etc.

**68** **Gm**

fingering: 3(2) 3 1 3 1 3 1 etc.

**69** **Gm**

fingering: 3(2) 1 1 etc.

**70** **Gm**

fingering: 3 1 3 1 etc.

**71** **Gm**

fingering: 1 H 3 3 3 3 etc.

**72** **Gm**

fingering: 1 H 3 1 3 etc.

**“To The Stage”** uses fast repeating patterns in four four-measure phrases. Practice each section separately before trying to put it all together.

# **TO THE STAGE**

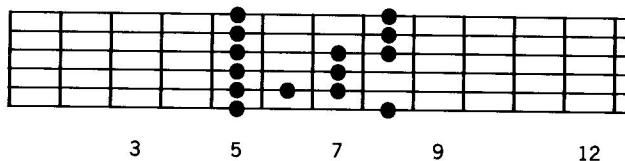
**(SOLO #2)** 

# PART III

## THE BLUES SCALE

The blues scale is the same as the minor pentatonic except for one additional note. Below, that note appears in two places in the scale pattern.

### A blues scale



#### ascending

73

fingering: 1 4 1 2 3 1 3 4 1 4 1 4 1 4 1 4 1 4 1 4 1 3 2 1 3 2 1 4 5

#### descending

The additional note of the blues scale is marked with an asterisk (\*) in the riff below.

74

fingering: 3(2) 3 1 4 3 1 3 1 3 2 1—1

## THE ONE-FRET BEND

Below, the additional note from the blues scale is played by bending up the note below it one fret. Listen for the difference between the two-fret and one-fret bends.

75

fingering: 1 4 3 1 3(2) 3 1 3(2) 3 1 3(2) 3 1 3(2)

# PICKING MECHANICS FOR TRIPLETS

When eighth-note triplets are played with continuous alternating picking, the first beat of triplets will begin with a downstroke while the second beat of triplets will begin with an upstroke. (See Rhythm Guitar Vol 2, Part XII.)

76

count: 1 2 3 4 1 2 3 4

Play the following licks using consistent alternating picking. This may require a little patience and practice. First, listen to the riff on the cassette and memorize the note pattern. Practice it paying attention only to the left-hand pattern (use all downstrokes). After you know the riff well, concentrate 100% on the alternating pick motion.

77

fingering: 3 1 3 1 1 1 3 1 3 1 1 1 3 1 3 1 3 1 3

fingering: 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2)

fingering: 3 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2

The swing rhythm is made by tying the first two notes of a triplet together so that the first note lasts 2/3 of a beat ( $\text{dotted note} = \text{eighth note} + \text{sixteenth note}$ ). (See Rhythm Guitar Vol 2, Part XII).

This rhythm is easier to pick with a downstroke beginning on each beat.

80

fingering: 3 3 1 3 3 1 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2 1 1 3 2

Triplets are often picked with a downstroke on each beat when both the second and third notes of each group are hammer-ons, pull-offs, bends, or releases.

81 Am

fingering: 3 1 3 1 3 1 3(2) 3 1 3

The triplet groups in the first measure below are called **rolls**. Notice that some of the notes are not in the scale pattern. These are called **passing notes** and are not heard as strongly because they are not on the downbeat. (Remember that notes on the downbeat are naturally emphasized more to the ear than notes that are not on the downbeat.) Passing tones act as sort of a “lubricant” between the notes to “smooth out” the run.

The following riffs use picked triplets, hammer-ons, pull-offs, the swing rhythm, bends, and rolls. Pay close attention to the picking pattern after you have memorized the sound and the notes of the run.

**83**

fingering: 3(2) 1 3 1 3 1 3(2) 3 1 3 1 2 3 1 1 3 1 2 3

 **Gm**  
**84** 

fingering: 1 2 3 1 2 3 1 3(2) 1 1 4 1 3(2) 1 4 1 4 3 1

# SPECIAL TECHNIQUES

## The Pre-Bend

A pre-bend is played by first bending the string up to pitch, then, picking and releasing it. You shouldn't hear any of the original bend. (If you do, you are picking it too soon.) Pre-bends will be indicated by a "PB" with a bend arrow showing the release. There will not be an arrow bending up as with a normal bend. Listen for the difference between the normal bend and the pre-bend below.

Guitar tablature for exercise 85. The strings are labeled T (Top), A, and B. The tab shows a sequence of notes: an open T, followed by a note at 7 with a downward arrow and a "P" above it, then a note at 5. This is followed by another note at 7 with a downward arrow and a "PB" above it, then a note at 5. Fingerings are indicated below the strings: 3(2) for the first note, 3 for the second, 1 for the third, 3(2) for the fourth, and 1 for the fifth. The tab ends with three vertical bars.

Make your bends sound like those on the cassette.

Guitar tablature for exercise 86. The strings are labeled T, A, and B. The tab shows a sequence of notes: an open T, followed by a note at 14 with a downward arrow and a "V" above it, then a note at 17(19). This is followed by a note at 14 with a downward arrow and a "PB" above it, then a note at 17(19). The next section starts with a note at 14 with a downward arrow and a "H" above it, followed by a note at 17 with a downward arrow and a "P" above it, then a note at 14. This is followed by a note at 16(18) with a downward arrow and a "PB" above it, then a note at 14 with a downward arrow and a "V" above it. The tab ends with three vertical bars. Fingerings are indicated below the strings: 3(2) for the first note, 1 for the second, 3(2) for the third, 3(2) for the fourth, 1 for the fifth, 3(2) for the sixth, and 1 for the seventh.

## The Slow Bend

Long, held out notes are often bent slowly up or down because a moving note gives much more feeling and expression.

However, the speed of these bends will not be indicated because they are subject to interpretation. You should develop your own way to use them. This will give you greater control and more feeling and emotion in your soloing.

Listen for this slow bending in the exercise below, and try to make yours sound similar. You might need to turn up the gain (distortion) to increase your sustain. If you can't get enough sustain, these bends will be difficult to do. Hold the lower strings quiet with your right hand.

Guitar tablature for exercise 87. The strings are labeled T, A, and B. The tab shows a sequence of notes: an open T, followed by a note at 12 with a downward arrow and a "V" above it, then a note at 15(17). This is followed by a note at 17 with a downward arrow and a "W" above it. The next section starts with a note at 17 with a downward arrow and a "H" above it, followed by a note at 15 with a downward arrow and a "P" above it, then a note at 17 with a downward arrow and a "P" above it. This is followed by a note at 15 with a downward arrow and a "W" above it. The tab ends with three vertical bars. Fingerings are indicated below the strings: 2 for the first note, 1 for the second, 3(2) for the third, 3(2) for the fourth, 3 for the fifth, 1 for the sixth, 3 for the seventh, and 1 for the eighth.

## The Rake

Lightly touch and mute all strings with your first finger of your left hand, as well as the side of your right hand. Rake the pick across the strings and, when you get to the destination notes, lift your right hand off the strings. **Rakes** are indicated as below.

Guitar tablature for exercise 88. The tab shows a fretboard with strings T, A, and B. A box labeled "rake" is placed over the strings. Above the strings, there are two small squares with diagonal lines, indicating a rake motion. The number 88 is printed above the tab.

## Staccato

**Staccato** means to play a note very short. It is indicated by a dot below (or above) a note. To play staccato notes, pick and immediately stop the string with the right hand.

Guitar tablature for exercise 89. The tab shows a fretboard with strings T, A, and B. Staccato dots are placed below the notes on strings T, A, and B. The number 89 is printed above the tab.

When a staccato indication appears on a bent note, stop the string as soon as the bend reaches its destination pitch. Notice the “bluesy” sound that this gives.

Guitar tablature for exercise 90. The tab shows a fretboard with strings T, A, and B. A staccato dot is placed below a bent note on string A. The number 90 is printed above the tab.

## LAZY TRIPLETS

Quarter-note triplets are called lazy triplets because of their staggered feeling. These triplets are three notes evenly spaced over two beats and notated as below. (See Rhythm Guitar Volume 2, Part XII.)

Guitar tablature for exercise 91. The tab shows a fretboard with strings T, A, and B. Lazy triplet markings (three notes under a bracket) are shown on strings A and B. Fingering numbers (0, 2, 3) are indicated below the strings. The number 91 is printed above the tab.

Listen to the riff below and notice the staggered feeling of the lazy triplets. Lay your first finger flat to play two notes at once.

Guitar tablature for exercise 92. The tab shows a fretboard with strings T, A, and B. It features a rhythmic pattern with lazy triplets and muting (indicated by a V). Fingering numbers (3(2), 1, 1, 3(2), 1, 1, 3(2), 1, 1, 3(2), 1, 1, 1, 1, 1, 3) are indicated below the strings. The number 92 is printed above the tab.

# IMPROVISATION AND PHRASING

An improvised lead is one that is spontaneously created on the spot. Improvised solos can have the advantage of being fresher and more creative than preplanned and worked out solos. However, if you have a rather limited amount of riffs and scales to draw from, improvisation has the drawback that your solos may all sound alike. With some practice and a good knowledge of rhythm, you will be able to keep your improvising different and interesting.

In learning to improvise, the most vital aspect is the ability to phrase your licks. A phrase is a musical "thought." It is to a solo what a sentence is to a paragraph. Phrasing includes choosing notes as well as a specific rhythm. Phrases are often one, two, or four measures long, and they may run together or overlap.

Below, a one-measure phrase is shown with a sample rhythm. First get familiar with the rhythm; then play the riffs below it. Notice how the riffs both use the same phrasing.

93     

**TAB** Am

fingering: 3 1 3 1 - 1 H 3 1 3 1

**TAB** Am

3(2) 1 1 1 3 1 3 1 3(2)

Now make up several riffs of your own using this same rhythm above but playing different notes. You may notice that some notes will sound better as beginning or ending notes. When you find some that sound good, remember them.

Below is a different rhythm. Play the following riff and make up some of your own using the same rhythm.

94     

**TAB** Gm

fingering: 3 1 3 1 - 3(2) 3 1 3

**TAB** Gm

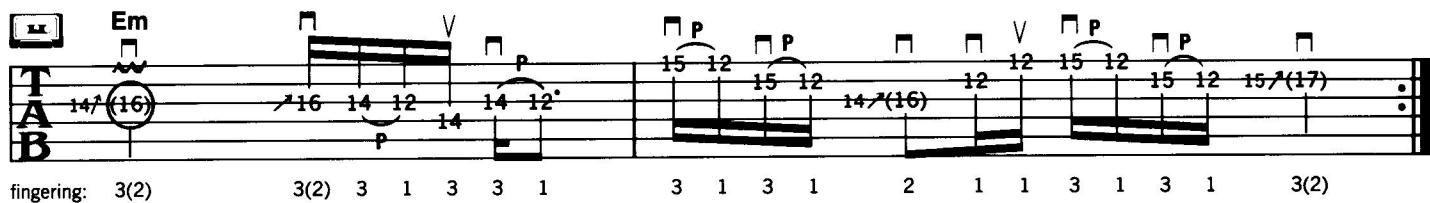
3(2) 3 1 3 1 1 3(2)

95



Em

Em

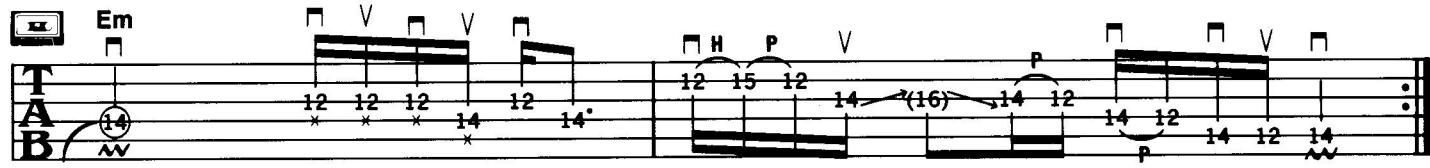


fingering: 3(2)

$$3(2) \quad 3 \quad 1 \quad 3 \quad 3 \quad 1 \quad \quad \quad 3 \quad 1 \quad 3 \quad 1 \quad \quad 2 \quad 1 \quad 1 \quad 3 \quad 1 \quad 3 \quad 1 \quad \quad 3(2)$$

Em

Em

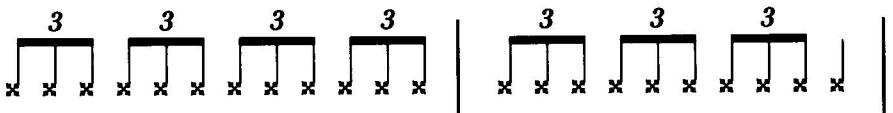


fingering: 3 1 1 1 3 1 3 1 3 1 3 3(2) 3 1 3 1 3 1 3

$$1 \quad 1 \quad 1 \quad 3 \quad 1 \quad 3 \qquad 1 \quad 3 \quad 1 \quad 3 \quad 3(2) \quad 3 \quad 1 \quad 3 \quad 1 \quad 3 \quad 1 \quad 3$$

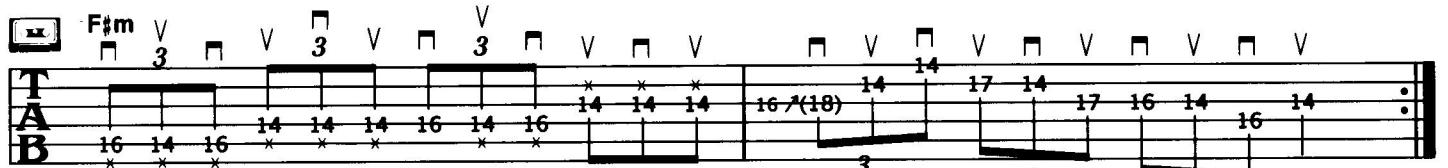
Phrases use simpler rhythms (as the one below) especially when the riffs are faster.

06



1

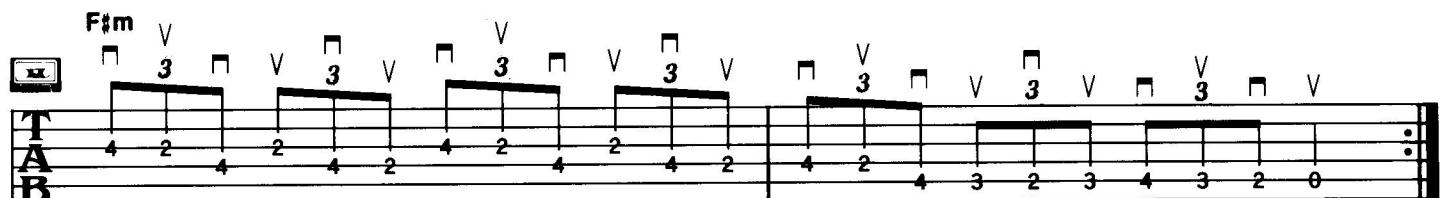
- F#m



fingering: 3 1 3 1 1 1 3 1 3 1 1 1 2 1 1 3 1 3 2 1 2 1

1

F#m



fingering: 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 2 1 2 3 2 1 0

Make up some of your own riffs using these phrases; then try making up some of your own phrases. Combining rhythms with notes gives an endless number of possibilities. After some practice you will be able to “feel” the length of the phrase and will no longer have to count out the beats.

**"From The Heart"** is a slow "metal blues" that uses every kind of bend including two-fret, one-fret, "blues" bends, pre-bends, and slow bends, as well as all of the special techniques.

This solo is made up of four four-measure phrases, however, they are not as simple as in "To The Stage." Here, phrase one has pick-up notes, phrases two and three run together, and phrase three runs over into the beginning of four. Try to give your bends the same feeling and expression. Also, you can experiment with improvising your own phrases over the rhythm track on the cassette.

## FROM THE HEART

(SOLO #3) 

F#m 9

<img alt="Guitar tablature for 'From The Heart' Solo #3. The page contains eight lines of tablature, each representing a string (T, A, B). The first line starts with a measure ending at bar 9. Subsequent lines continue the solo through bar 14, then bars 15-18, 19-22, 23-26, 27-30, 31-34, 35-38, 39-42, 43-46, 47-50, 51-54, 55-58, 59-62, 63-66, 67-70, 71-74, 75-78, 79-82, 83-86, 87-90, 91-94, 95-98, 99-102, 103-106, 107-110, 108-111, 112-115, 116-119, 117-120, 121-124, 125-128, 126-130, 127-131, 128-132, 129-133, 130-134, 131-135, 132-136, 133-137, 134-138, 135-139, 136-140, 137-141, 138-142, 139-143, 140-144, 141-145, 142-146, 143-147, 144-148, 145-149, 146-150, 147-151, 148-152, 149-153, 150-154, 151-155, 152-156, 153-157, 154-158, 155-159, 156-160, 157-161, 158-162, 159-163, 160-164, 161-165, 162-166, 163-167, 164-168, 165-169, 166-170, 167-171, 168-172, 169-173, 170-174, 171-175, 172-176, 173-177, 174-178, 175-179, 176-180, 177-181, 178-182, 179-183, 180-184, 181-185, 182-186, 183-187, 184-188, 185-189, 186-190, 187-191, 188-192, 189-193, 190-194, 191-195, 192-196, 193-197, 194-198, 195-199, 196-200, 197-201, 198-202, 199-203, 200-204, 201-205, 202-206, 203-207, 204-208, 205-209, 206-210, 207-211, 208-212, 209-213, 210-214, 211-215, 212-216, 213-217, 214-218, 215-219, 216-220, 217-221, 218-222, 219-223, 220-224, 221-225, 222-226, 223-227, 224-228, 225-229, 226-230, 227-231, 228-232, 229-233, 230-234, 231-235, 232-236, 233-237, 234-238, 235-239, 236-240, 237-241, 238-242, 239-243, 240-244, 241-245, 242-246, 243-247, 244-248, 245-249, 246-250, 247-251, 248-252, 249-253, 250-254, 251-255, 252-256, 253-257, 254-258, 255-259, 256-260, 257-261, 258-262, 259-263, 260-264, 261-265, 262-266, 263-267, 264-268, 265-269, 266-270, 267-271, 268-272, 269-273, 270-274, 271-275, 272-276, 273-277, 274-278, 275-279, 276-280, 277-281, 278-282, 279-283, 280-284, 281-285, 282-286, 283-287, 284-288, 285-289, 286-290, 287-291, 288-292, 289-293, 290-294, 291-295, 292-296, 293-297, 294-298, 295-299, 296-300, 297-301, 298-302, 299-303, 300-304, 301-305, 302-306, 303-307, 304-308, 305-309, 306-310, 307-311, 308-312, 309-313, 310-314, 311-315, 312-316, 313-317, 314-318, 315-319, 316-320, 317-321, 318-322, 319-323, 320-324, 321-325, 322-326, 323-327, 324-328, 325-329, 326-330, 327-331, 328-332, 329-333, 330-334, 331-335, 332-336, 333-337, 334-338, 335-339, 336-340, 337-341, 338-342, 339-343, 340-344, 341-345, 342-346, 343-347, 344-348, 345-349, 346-350, 347-351, 348-352, 349-353, 350-354, 351-355, 352-356, 353-357, 354-358, 355-359, 356-360, 357-361, 358-362, 359-363, 360-364, 361-365, 362-366, 363-367, 364-368, 365-369, 366-370, 367-371, 368-372, 369-373, 370-374, 371-375, 372-376, 373-377, 374-378, 375-379, 376-380, 377-381, 378-382, 379-383, 380-384, 381-385, 382-386, 383-387, 384-388, 385-389, 386-390, 387-391, 388-392, 389-393, 390-394, 391-395, 392-396, 393-397, 394-398, 395-399, 396-400, 397-401, 398-402, 399-403, 400-404, 401-405, 402-406, 403-407, 404-408, 405-409, 406-410, 407-411, 408-412, 409-413, 410-414, 411-415, 412-416, 413-417, 414-418, 415-419, 416-420, 417-421, 418-422, 419-423, 420-424, 421-425, 422-426, 423-427, 424-428, 425-429, 426-430, 427-431, 428-432, 429-433, 430-434, 431-435, 432-436, 433-437, 434-438, 435-439, 436-440, 437-441, 438-442, 439-443, 440-444, 441-445, 442-446, 443-447, 444-448, 445-449, 446-450, 447-451, 448-452, 449-453, 450-454, 451-455, 452-456, 453-457, 454-458, 455-459, 456-460, 457-461, 458-462, 459-463, 460-464, 461-465, 462-466, 463-467, 464-468, 465-469, 466-470, 467-471, 468-472, 469-473, 470-474, 471-475, 472-476, 473-477, 474-478, 475-479, 476-480, 477-481, 478-482, 479-483, 480-484, 481-485, 482-486, 483-487, 484-488, 485-489, 486-490, 487-491, 488-492, 489-493, 490-494, 491-495, 492-496, 493-497, 494-498, 495-499, 496-500, 497-501, 498-502, 499-503, 500-504, 501-505, 502-506, 503-507, 504-508, 505-509, 506-510, 507-511, 508-512, 509-513, 510-514, 511-515, 512-516, 513-517, 514-518, 515-519, 516-520, 517-521, 518-522, 519-523, 520-524, 521-525, 522-526, 523-527, 524-528, 525-529, 526-530, 527-531, 528-532, 529-533, 530-534, 531-535, 532-536, 533-537, 534-538, 535-539, 536-540, 537-541, 538-542, 539-543, 540-544, 541-545, 542-546, 543-547, 544-548, 545-549, 546-550, 547-551, 548-552, 549-553, 550-554, 551-555, 552-556, 553-557, 554-558, 555-559, 556-560, 557-561, 558-562, 559-563, 560-564, 561-565, 562-566, 563-567, 564-568, 565-569, 566-570, 567-571, 568-572, 569-573, 570-574, 571-575, 572-576, 573-577, 574-578, 575-579, 576-580, 577-581, 578-582, 579-583, 580-584, 581-585, 582-586, 583-587, 584-588, 585-589, 586-590, 587-591, 588-592, 589-593, 590-594, 591-595, 592-596, 593-597, 594-598, 595-599, 596-600, 597-601, 598-602, 599-603, 600-604, 601-605, 602-606, 603-607, 604-608, 605-609, 606-610, 607-611, 608-612, 609-613, 610-614, 611-615, 612-616, 613-617, 614-618, 615-619, 616-620, 617-621, 618-622, 619-623, 620-624, 621-625, 622-626, 623-627, 624-628, 625-629, 626-630, 627-631, 628-632, 629-633, 630-634, 631-635, 632-636, 633-637, 634-638, 635-639, 636-640, 637-641, 638-642, 639-643, 640-644, 641-645, 642-646, 643-647, 644-648, 645-649, 646-650, 647-651, 648-652, 649-653, 650-654, 651-655, 652-656, 653-657, 654-658, 655-659, 656-660, 657-661, 658-662, 659-663, 660-664, 651-665, 652-666, 653-667, 654-668, 655-669, 656-670, 657-671, 658-672, 659-673, 660-674, 661-675, 662-676, 663-677, 664-678, 665-679, 666-680, 667-681, 668-682, 669-683, 670-684, 671-685, 672-686, 673-687, 674-688, 675-689, 676-690, 677-691, 678-692, 679-693, 680-694, 681-695, 682-696, 683-697, 684-698, 685-699, 686-700, 687-701, 688-702, 689-703, 690-704, 691-705, 692-706, 693-707, 694-708, 695-709, 696-710, 697-711, 698-712, 699-713, 700-714, 691-715, 692-716, 693-717, 694-718, 695-719, 696-720, 697-721, 698-722, 699-723, 700-724, 691-725, 692-726, 693-727, 694-728, 695-729, 696-730, 697-731, 698-732, 699-733, 700-734, 691-735, 692-736, 693-737, 694-738, 695-739, 696-740, 697-741, 698-742, 699-743, 700-744, 691-745, 692-746, 693-747, 694-748, 695-749, 696-750, 697-751, 698-752, 699-753, 700-754, 691-755, 692-756, 693-757, 694-758, 695-759, 696-760, 697-761, 698-762, 699-763, 700-764, 691-765, 692-766, 693-767, 694-768, 695-769, 696-770, 697-771, 698-772, 699-773, 700-774, 691-775, 692-776, 693-777, 694-778, 695-779, 696-780, 697-781, 698-782, 699-783, 700-784, 691-785, 692-786, 693-787, 694-788, 695-789, 696-790, 697-791, 698-792, 699-793, 700-794, 691-795, 692-796, 693-797, 694-798, 695-799, 696-800, 697-801, 698-802, 699-803, 700-804, 691-805, 692-806, 693-807, 694-808, 695-809, 696-810, 697-811, 698-812, 699-813, 700-814, 691-815, 692-816, 693-817, 694-818, 695-819, 696-820, 697-821, 698-822, 699-823, 700-824, 691-825, 692-826, 693-827, 694-828, 695-829, 696-830, 697-831, 698-832, 699-833, 700-834, 691-835, 692-836, 693-837, 694-838, 695-839, 696-840, 697-841, 698-842, 699-843, 700-844, 691-845, 692-846, 693-847, 694-848, 695-849, 696-850, 697-851, 698-852, 699-853, 700-854, 691-855, 692-856, 693-857, 694-858, 695-859, 696-860, 697-861, 698-862, 699-863, 700-864, 691-865, 692-866, 693-867, 694-868, 695-869, 696-870, 697-871, 698-872, 699-873, 700-874, 691-875, 692-876, 693-877, 694-878, 695-879, 696-880, 697-881, 698-882, 699-883, 700-884, 691-885, 692-886, 693-887, 694-888, 695-889, 696-890, 697-891, 698-892, 699-893, 700-894, 691-895, 692-896, 693-897, 694-898, 695-899, 696-900, 697-901, 698-902, 699-903, 700-904, 691-905, 692-906, 693-907, 694-908, 695-909, 696-910, 697-911, 698-912, 699-913, 700-914, 691-915, 692-916, 693-917, 694-918, 695-919, 696-920, 697-921, 698-922, 699-923, 700-924, 691-925, 692-926, 693-927, 694-928, 695-929, 696-930, 697-931, 698-932, 699-933, 700-934, 691-935, 692-936, 693-937, 694-938, 695-939, 696-940, 697-941, 698-942, 699-943, 700-944, 691-945, 692-946, 693-947, 694-948, 695-949, 696-950, 697-951, 698-952, 699-953, 700-954, 691-955, 692-956, 693-957, 694-958, 695-959, 696-960, 697-961, 698-962, 699-963, 700-964, 691-965, 692-966, 693-967, 694-968, 695-969, 696-970, 697-971, 698-972, 699-973, 700-974, 691-975, 692-976, 693-977, 694-978, 695-979, 696-980, 697-981, 698-982, 699-983, 700-984, 691-985, 692-986, 693-987, 694-988, 695-989, 696-990, 697-991, 698-992, 699-993, 700-994, 691-995, 692-996, 693-997, 694-998, 695-999, 696-1000, 697-1001, 698-1002, 699-1003, 700-1004, 691-1005, 692-1006, 693-1007, 694-1008, 695-1009, 696-1010, 697-1011, 698-1012, 699-1013, 700-1014, 691-1015, 692-1016, 693-1017, 694-1018, 695-1019, 696-1020, 697-1021, 698-1022, 699-1023, 700-1024, 691-1025, 692-1026, 693-1027, 694-1028, 695-1029, 696-1030, 697-1031, 698-1032, 699-1033, 700-1034, 691-1035, 692-1036, 693-1037, 694-1038, 695-1039, 696-1040, 697-1041, 698-1042, 699-1043, 700-1044, 691-1045, 692-1046, 693-1047, 694-1048, 695-1049, 696-1050, 697-1051, 698-1052, 699-1053, 700-1054, 691-1055, 692-1056, 693-1057, 694-1058, 695-1059, 696-1060, 697-1061, 698-1062, 699-1063, 700-1064, 691-1065, 692-1066, 693-1067, 694-1068, 695-1069, 696-1070, 697-1071, 698-1072, 699-1073, 700-1074, 691-1075, 692-1076, 693-1077, 694-1078, 695-1079, 696-1080, 697-1081, 698-1082, 699-1083, 700-1084, 691-1085, 692-1086, 693-1087, 694-1088, 695-1089, 696-1090, 697-1091, 698-1092, 699-1093, 700-1094, 691-1095, 692-1096, 693-1097, 694-1098, 695-1099, 696-1100, 697-1101, 698-1102, 699-1103, 700-1104, 691-1105, 692-1106, 693-1107, 694-1108, 695-1109, 696-1110, 697-1111, 698-1112, 699-1113, 700-1114, 691-1115, 692-1116, 693-1117, 694-1118, 695-1119, 696-1120, 697-1121, 698-1122, 699-1123, 700-1124, 691-1125, 692-1126, 693-1127, 694-1128, 695-1129, 696-1130, 697-1131, 698-1132, 699-1133, 700-1134, 691-1135, 692-1136, 693-1137, 694-1138, 695-1139, 696-1140, 697-1141, 698-1142, 699-1143, 700-1144, 691-1145, 692-1146, 693-1147, 694-1148, 695-1149, 696-1150, 697-1151, 698-1152, 699-1153, 700-1154, 691-1155, 692-1156, 693-1157, 694-1158, 695-1159, 696-1160, 697-1161, 698-1162, 699-1163, 700-1164, 691-1165, 692-1166, 693-1167, 694-1168, 695-1169, 696-1170, 697-1171, 698-1172, 699-1173, 700-1174, 691-1175, 692-1176, 693-1177, 694-1178, 695-1179, 696-1180, 697-1181, 698-1182, 699-1183, 700-1184, 691-1185, 692-1186, 693-1187, 694-1188, 695-1189, 696-1190, 697-1191, 698-1192, 699-1193, 700-1194, 691-1195, 692-1196, 693-1197, 694-1198, 695-1199, 696-1200, 697-1201, 698-1202, 699-1203, 700-1204, 691-1205, 692-1206, 693-1207, 694-1208, 695-1209, 696-1210, 697-1211, 698-1212, 699-1213, 700-1214, 691-1215, 692-1216, 693-1217, 694-1218, 695-1219, 696-1220, 697-1221, 698-1222, 699-1223, 700-1224, 691-1225, 692-1226, 693-1227, 694-1228, 695-1229, 696-1230, 697-1231, 698-1232, 699-1233, 700-1234, 691-1235, 692-1236, 693-1237, 694-1238, 695-1239, 696-1240, 697-1241, 698-1242, 699-1243, 700-1244, 691-1245, 692-1246, 693-1247, 694-1248, 695-1249, 696-1250, 697-1251, 698-1252, 699-1253, 700-1254, 691-1255, 692-1256, 693-1257, 694-1258, 695-1259, 696-1260, 697-1261, 698-1262, 699-1263, 700-1264, 691-1265, 692-1266, 693-1267, 694-1268, 695-1269, 696-1270, 697-1271, 698-1272, 699-1

# PART IV

## NOTES ON THE FIFTH STRING

To play in different keys using scale forms with the root on the fifth string, you must first know the names of the notes on the fifth string.

As before, use sharps and flats for the names of the notes in the fret spaces that are unlabelled. (Remember: sharp = up; flat = down.) Notice that all natural notes (not sharp or flat) are two frets apart except B and C, and E and F, which are only one fret apart. A distance of two frets is called a **whole step**; one fret is a **half step**.

## MINOR PENTATONIC FORM WITH ROOT ON FIFTH STRING

This form of the minor pentatonic scale has its root on the fifth string.

### A minor pentatonic

**ascending**

97      **A**      **B**

fingering: 1 4 1 3 1 3 1 3 1 3 1 3 1 4 1

**descending**

fingering: 1 3 1 2 1 1 2 1 3 1 2 1 3 1 4 1

The following riff uses this new scale pattern.

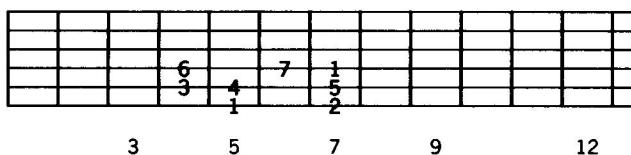
98      **Am**

fingering: 3(2) 1 3 1 2 1 1 2 1 3 1 2 1 3 1 4 1

# UNDERSTANDING SCALE BASICS

All scales will be viewed in relation to the **major scale**, below. The notes of this scale are numbered in ascending order (**1, 2, 3, 4, 5, 6, 7, 1**) and these numbers are called **tones**.

## A Major

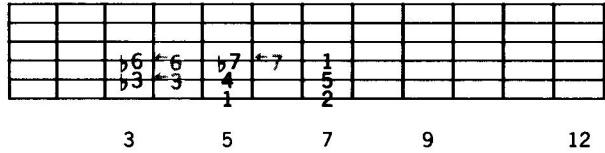


Remember that a note is a specific pitch with a letter name (e.g. A, C, F♯ . . .). A tone, however, is the number in the scale. (Do not confuse this meaning of the word tone with its other meaning: trebleness or bassyness).

Notice that the major scale above, although it has eight notes, has only seven different tones. The root, or first tone, appears twice. If you continue up or down the scale, the tones continue to repeat over and over in the same order (although the scale would be an octave higher or lower).

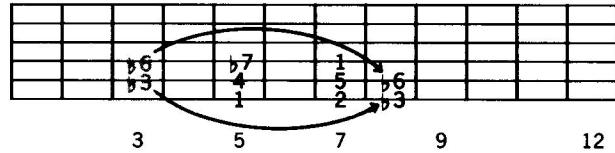
The **natural minor** scale (or “pure” minor) is also a seven-tone scale. It is the same as the major except for the third, sixth, and seventh tones, which are flattened in the minor scale. The tones of the natural minor scale are **1, 2, ♭3, 4, 5, ♭6, ♭7, 1**.

## A natural minor



or,

## A natural minor



Each one of the scales gives a different mood or feeling. Of course different people may have somewhat different impressions, but most would agree that the major scale feels basically bright, happy, light, or triumphant. The minor scale, on the other hand, is dark, sad, heavy, or medieval.

**99** Listen to the mood or feeling of a melody in a **major scale**.

**100** Listen to the mood or feeling of a melody in a **minor scale**.

Although the major and minor scales are the most extreme opposites, each different kind of scale has its own feeling.

# THE TONES OF THE MINOR PENTATONIC SCALE

The minor pentatonic scale is a five tone minor scale. It is the same as the natural minor scale except that the second and sixth degrees are skipped in the pentatonic scale.

### A natural minor

### A minor pentatonic

Knowing the tones you are using is much more important than even the note names because the numbering of the tones shows each note's relationship to the root. And it is this relationship that gives any note its particular sound. For instance, the minor seventh tone ( $\flat 7$ ) will always give the same effect, regardless of what key it is in. You can eventually develop your ear to recognize these tones. This enables you to learn by ear much faster, and will also help you to find the notes on the guitar for a riff you may create in your mind.

**Memorize the tones in the minor pentatonic pattern.**

A diagram of a guitar neck illustrating a C major scale with a blues-style alteration. The scale is shown across six strings and twelve frets. The notes are labeled as follows:

- Fret 1: 1, 5
- Fret 2: b3, b7
- Fret 3: 4
- Fret 4: 1, 5
- Fret 5: b3
- Fret 6: 4
- Fret 7: 5
- Fret 8: b3
- Fret 9: 1, 5
- Fret 10: b3
- Fret 11: 4
- Fret 12: 5

The 12th fret is marked with a vertical line.

**Play the following riffs and write in the tone of each note in the blank underneath the tab. The additional note of the blues scale ( $\flat 5$ ) is also included. Answers on page 38.**

102

**Tones:** — — — — — — — — — — — — — —

Below, the tones of the minor pentatonic scale are shown in the new form with the root on the fifth string. Notice the similarity between this form and that on the previous page.

## A minor pentatonic

A diagram of a guitar neck illustrating a C major scale with a blues-style alteration. The notes shown are 5, b3, b7, 4, b7, 4, 1. The 5th string is muted. Fret numbers 7, 9, 12, 15, 17, 19, 21 are marked below the neck.

Play the riff below and write in the tones in the spaces underneath. Answers on page 38.

# THE NATURAL MINOR SCALE

Below is the complete natural minor scale pattern. Notice that the pentatonic scale that you already know is within the pattern below (dots). The additional tones of the natural minor (2 and  $\flat$ 6) are labelled.

### A natural minor

The following licks use the natural minor pattern. Write in the tones used underneath. The second riff below uses the  $b5$  of the blues scale in addition to the notes of the natural minor. Answers on page 38.

**105**

fingering: 3(2) 1 1 4 1 2 1 3 4 3 1 3(2)

Tones: — — — — — — — —

**106**

**E<sub>m</sub>**

**T** 12 15 12      12 13 12      15 12  
**A**                15                15 14 12 11  
**B**                —                —

fingering: 1 3 1 3 1 2 1 3 1 3 2 1-1

Tones: — — — — — — — — — —

Below is the natural minor scale pattern with the root on the fifth string. Notice the pentatonic pattern that you have already learned within the natural minor.

A natural minor

**ascending**

**descending**

T 12 13 15 | 15 13 12  
A 12 14 | 15 13 12  
B 12 14 15 | 15 14 12

fingering: 1 3 4 1 3 4 1 3 1 2 4 1 2 4 4 2 1 4 2 1 3 1 4 3 1 4 3 1

The following riff uses this form of the minor scale. Write in the tones. Answers on page 38.

**Am**

fingering: 4 2 1 4 2 1      Tones: — — — — — — — — — — — — — — — —

## Answers

## Riffs in the Minor Pentatonic Scale (or blues)

## **Exercise 101:**      b3 1 b7 5 b3 1 b7 5 1 b7 5 1

A diagram consisting of two groups of vertical lines. The first group has four lines with the numbers b7, 5, b5, 5 written below them. The second group has four lines with the numbers b7, 5, b5, 4 written below them. To the right of the second group is a circle containing the number b3.

**Exercise 102:** 

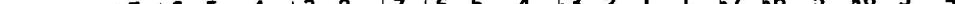
1

**Exercise 103:**

## Riffs in the Natural Minor Scale (including $b5$ of the blues)

**Exercise 105:** 

**Exercise 106:** 

**Exercise 108:** 

# **SPEED EXERCISES FOR “THE HEAVY SIDE”**

**Begin slowly!** Make sure that your picking is correct. Slowly increase your tempo until you are going as fast as you can play smoothly. Then push yourself a little faster and try to smooth it out. To develop control as well as speed, you should spend just as much time playing slower than top speed as you spend playing at top speed.

Em

TAB

fingering: 1 3 1 3

Em

Em

TAB

fingering: 3(2) 3 1 3 3(2) 3 1 3 1

P V P V

14 / (16) 14 12 12 14 / (16) 14 12 12 14 12

**Exercise 112** is more difficult because it is played higher on the neck and covers a lot of distance without backtracking.

**112**

**“The Heavy Side”** uses simpler phrasing than **“From The Heart.”** Each phrase is exactly four measures long, without overlapping into each other. The only exception is the group of pick-up notes before the first measure. This simpler, more straightforward phrasing sounds more driving.

# **THE HEAVY SIDE**

**(Solo #4)** 

# PART V

## PICKING MECHANICS FOR CROSSING STRINGS

Continuous alternating picking while crossing between strings is one of the most difficult techniques to master, but well worth the effort. Listen to Yngwie Malmsteen or Al Dimeola for some well perfected cross string picking.

Practice the following exercises as speed exercises to develop faster cross-string alternating picking. The first exercise below crosses between strings one time.

113

This tablature shows a single crossing pattern between the Thru (T) and A strings. The sequence starts with a downstroke (square) on the Thru string at fret 8, followed by an upstroke (V) on the A string at fret 5. This is followed by another downstroke (square) on the Thru string at fret 8, and finally an upstroke (V) on the A string at fret 5. The pattern repeats with a colon (:) indicating it continues.

The next patterns cross between strings with an inward picking motion. This means that the direction of the picking motion on each string faces in (See photo).

114

This tablature shows an inward crossing pattern between the Thru (T) and A strings. The sequence starts with a downstroke (square) on the Thru string at fret 8, followed by an upstroke (V) on the A string at fret 5. This is followed by another downstroke (square) on the Thru string at fret 8, and finally an upstroke (V) on the A string at fret 5. The pattern repeats with a colon (:) indicating it continues.



115

This tablature shows an inward crossing pattern between the Thru (T) and A strings. The sequence starts with a downstroke (square) on the Thru string at fret 8, followed by an upstroke (V) on the A string at fret 5. This is followed by another downstroke (square) on the Thru string at fret 8, and finally an upstroke (V) on the A string at fret 5. The pattern repeats with a colon (:) indicating it continues.

The opposite picking motion is that of outward picking (See photo). The following patterns use outward picking.

116

This tablature shows an outward crossing pattern between the Thru (T) and A strings. The sequence starts with an upstroke (V) on the Thru string at fret 5, followed by a downstroke (square) on the A string at fret 8. This is followed by another upstroke (V) on the Thru string at fret 5, and finally a downstroke (square) on the A string at fret 8. The pattern repeats with a colon (:) indicating it continues.



117

This tablature shows an outward crossing pattern between the Thru (T) and A strings. The sequence starts with an upstroke (V) on the Thru string at fret 5, followed by a downstroke (square) on the A string at fret 8. This is followed by another upstroke (V) on the Thru string at fret 5, and finally a downstroke (square) on the A string at fret 8. The pattern repeats with a colon (:) indicating it continues.

If you have a lot of difficulty on a particular picking pattern, make up runs and exercises that use that pattern and work out your trouble spots. Spend time right where you need it and you will improve fastest. You can also choose patterns that you already do well to use as building blocks to construct your fastest runs.

The exercise below makes use of a two-note contour played in sixteenth notes.

**126**

**Am**      *V etc.*

**T**      **A**      **B**

fingering: 1 4 3 1 4 3 1 4 3 1 4 2 1 4 2 1 4 2 1 4 2 3

The pentatonic and blues scales are contoured below. In the first exercise, the cross string picking pattern is very difficult. You can substitute this pattern with a pull-off to the second note, which makes the pattern easier. Randy Rhoads' first solo in "Mr. Crowley" and the solo in "Believer" both make use of this kind of contoured pattern.

**127**

**Am**

fingering: 3 1 3 1 3 1 etc.

**T A B**

**T A B**

Where there is an asterisk (\*) below, roll your finger to change notes smoothly.

There are many more possibilities than those shown here. Make up your own contours. You can try groups of six or eight or even longer and with more complicated patterns.

**129**  Listen to a faster eight-note contour pattern.

**130**  Listen to a twenty-four note contoured pattern with subcontours (contours within a longer overall contour).

Not only are these types of exercises good for developing cross-string picking, but they also make you think of notes in groups rather than separately. This will help you to be able to improvise faster runs as well as enable you to think of more ways to group notes.

# USING SCALE CONTOURS IN RUNS

You can use parts of contoured scales in runs. However, be careful not to go overboard or your solos may begin sounding like exercises. When making up runs and solos try to listen to your notes instead of just watching the patterns.

Often, a run on a record that sound like it has a million notes played all over the neck, really turns out to be using a much smaller number of notes in just one position. Don't overdo it. Try recording yourself and listen to your runs to see if they really sound the way you think they do.

Note the contour patterns used in the runs below.

31

Am

T A B

fingering: 3(2) 1 2 3 2 1 2 3(2) 1 4 2 1 2 1 3 1 1 2 1 4 1

32

Em

T A B

fingering: 3 1 3 1 3 1 3 1 3 1 3 2 1 3 1 1 2 1 1 1

## RHYTHMIC PATTERNS

Here, as in Part I, rhythmic patterns deal with repeating a group of notes so that with each repetition, a different note falls on each downbeat. Below is a six-note pattern repeated over sixteenth notes. After learning the notes, practice tapping your foot with the count.

33

Am

T A B

fingering: 3 1 2 1 3 1 3 1 2 1 3 1 3 1 2 1 3 1 3 1 2 1 3(2)

Below, a three-note pattern is repeated over sixteenths. Tap your foot with the beat or the rhythmic effect will be somewhat lost.

134

Bm

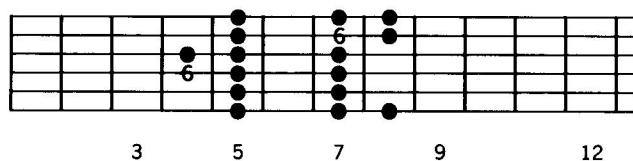
T A B

fingering: 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2) 1 1 3(2)

## THE DORIAN SCALE

The Dorian scale (or mode) is a seven-tone scale with the tones 1, 2,  $\flat$ 3, 4, 5, 6,  $\flat$ 7, 1. The only difference between Dorian and natural minor is the sixth degree. The Dorian scale feels brighter and less heavy, while the natural minor sounds darker and more “classical” or medieval. The sixth tone is labelled below.

## A Dorian scale



The following runs use the Dorian scale. The major sixth of this scale is marked with an asterisk (\*).

137

fingering: 1 2 3 2 1 3 2 3 2 1 2 1 2 3 2 1 3 2 1

# FASTER NOTES

Sixteenth-note triplets are six notes per beat. You can think of these as having a triplet on the downbeat (first half of the beat) and another triplet on the upbeat (second half). Play the sixteenth note triplet rolls below.

38

fingering: 1 2 3 H 1 2 3 12 13 14 12 13 14 12 13 14 11 12 14 12 3 2 3 1 2 3 1 3 1

## THE THREE AND FOUR-FRET BEND

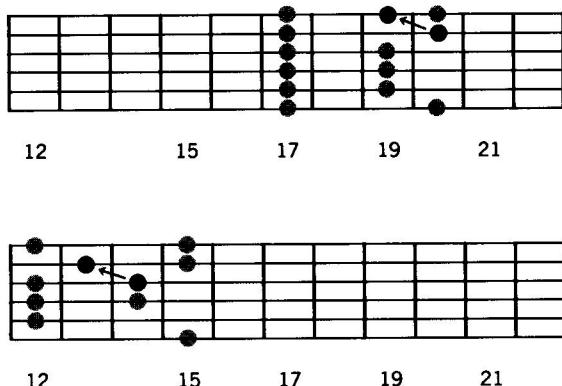
Exercise 139 uses a four-fret bend and exercise 140 uses a three-fret bend. The scale pattern used is shown at the right. The note being bent and the destination pitch of the bend are shown in heavy print. Listen carefully to the pitch that your bend reaches.

39

fingering: 1 3 1 2 1 3(2,1) 3 1

40

fingering: 1 3 1 2 1-1 3 1 3 3(2)



## SPEED EXERCISES FOR “DANGER AHEAD”

First, practice slowly keeping the picking smooth and even.

41

fingering: 1 3 3 3

43

fingering: 2 0 2 0 3 0 2 0 2 0 3 0 2 0 2 0

142

fingering: 1 2 4 1 2 4

144

fingering: 1 3 1 2

**“Danger Ahead”** begins in the key of A, but changes to E dorian for the solo. Halfway through the solo the key changes again to B dorian. The rolls in the second phrase use an extended form of E dorian.

Parts of this solo sound reminiscent of Randy Rhoads, although most of his solos use the pentatonic and natural minor scales. The type of scale used is only one aspect of a style. The phrasing used, the notes stressed, the types of rhythms used and what the rhythm/bass guitar is doing underneath the lead all affect the overall feeling and style.

# DANGER AHEAD

(Solo #5) 

**A** 8 Em

**fingering:**

**①**

**②**

**③**

**④**

**⑤ Bm**

**⑥**

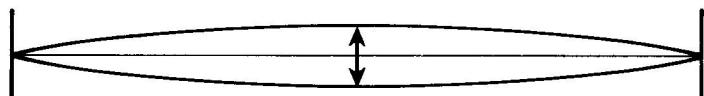
**⑦**

**⑧** slide from an indefinite point

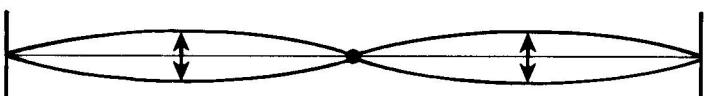
# PART VI

## NATURAL HARMONICS

The figure below shows how an open string vibrates.



When a string is stopped from moving in the middle, it vibrates like this:



The place where the string does not move is called a **node**. In the second figure, the string vibrates twice as fast as the first figure, above, and the pitch goes up one octave.

On the guitar, the twelfth fret is halfway between the nut and the bridge.

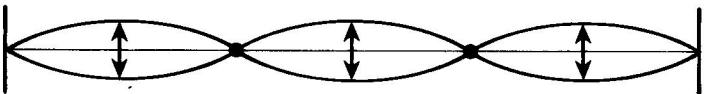
To play this harmonic, put your finger at the twelfth fret, but do not press down. Instead, touch the string lightly above the correct fret (NOT above the fret space, but directly above the metal fret itself). After picking the note, lift your finger off of the string.

Natural harmonics will be indicated by placing the fret number in a diamond with a small "N". The harmonics below are all one octave above the open strings.

146

Fretboard diagram for exercise 146. The strings are labeled T (Treble), A, B, E, D, G, B, E. The A string has natural harmonics marked with diamonds at the 12th fret (labeled N) and the 24th fret (labeled N). The 24th fret is indicated by a double diamond symbol. The 12th fret is indicated by a single diamond symbol. The 0th fret is indicated by a circle symbol.

Natural harmonics occur wherever a string is divided into equal parts. When divided into three parts, a string vibrates like this:



The harmonic may be produced by touching either node, which are at the seventh and nineteenth frets. This harmonic is one octave and a fifth (a fifth is five tones of the major scale) above the open string. Or you can think of it as being just one octave above the note at the seventh fret.

147

Fretboard diagram for exercise 147. The strings are labeled T (Treble), A, B, E, D, F#, B. The A string has natural harmonics marked with diamonds at the 7th and 19th frets (labeled N). The 19th fret is indicated by a double diamond symbol. The 7th fret is indicated by a single diamond symbol. The 0th fret is indicated by a circle symbol.

Dividing a string into four parts raises the pitch two octaves above the open string. You can find this harmonic over the fifth fret.

**148**

T A B  
0 5 N  
E A D G B E  
0 5 0 5 0 5  
E A D G B E

The harmonic located over the fourth fret divides the string into five parts which raises the pitch two octaves and a third (three tones of the major scale) above the open string. Or you can think of this harmonic as being two octaves above the note at the fourth fret.

**149**

T A B  
4 N  
G# C# F# B D# G#  
4 4 4 4 4 4  
G# C# F# B D# G#

Dividing a string into six equal parts raises the pitch two octaves and a fifth above the open string. This occurs just slightly higher than the third fret. After this, the harmonic series continues, but the harmonics become more and more difficult to produce.

**150**

T A B  
5 4 3+ 5 4 3+ 5 4 3+ 5  
E G# B D# F# G B D D  
5 4 3+ 5 4 3+ 5 4 3+ 5  
E G# B D# F# G B D D

The following riff makes use of natural harmonics.

**151**

Em

T A B  
0 2 H 0 2 X 0 2 2 2 2 2 2 12 12 N 4 3+ 5 4  
H 2 X 2 2 2 2 2 2 2 2 2 2 12 12 N 4 3+ 5 4  
fingering:

# USING THE VIBRATO BAR

The vibrato bar, also called the whammy bar, whang bar, or tremolo arm, is a major part of the styles of many of the best guitarists including Van Halen, Brad Gillis, Steve Vai, and many others.

The simplest effect with the bar is dipping. This is done by slightly and quickly depressing and releasing the bar. Listen to exercise 152 and try to copy the sound.

152

This tab shows a single note on the B string at the 0th fret. Three curved arrows labeled "dip" indicate the movement of the vibrato bar downwards during the note's duration.

One of the most common effects with the bar is sometimes called divebombing. Below, pick the string open, let it ring out for a little bit, then push down the bar slowly at first, picking up speed. Make your dive sound like that on the cassette. A dive with the vibrato bar will be indicated as below.

153

This tab shows an open B string being picked. A curved arrow labeled "dive" indicates the slow downward movement of the vibrato bar as the note rings out.

Divebombing is sometimes used on natural harmonics.

154

This tab shows a natural harmonic on the B string at the 5th fret. A curved arrow labeled "dive" indicates the slow downward movement of the vibrato bar as the note rings out.

To get more sustain on the diving note, pull off with your left hand (from any fret) extra hard instead of picking the string. Below, pull off with the left hand, then, when the bar is down, pull off onto the next string and return the bar back up. Use the fingers and thumb of your left hand to keep the other strings quiet.

155

This tab shows an open B string being pulled off (indicated by a curved arrow labeled "dive") and then immediately returning to the string (indicated by a curved arrow labeled "return").

Below, release immediately back to normal pitch after the dive. Let the bar flip back to position at the same time that you pick the next chord. Try to eliminate raising the open string back up before the chord.

156

This tab shows an open B string being pulled off (indicated by a curved arrow labeled "dive") and then immediately returning to the string (indicated by a curved arrow labeled "return"). The bar then flips back to its original position for the next chord.

In exercise 157, slowly dive with the bar while playing the notes with hammer-ons and pull-offs. Hammer down the first note without a previous note sounding.

157

Below, do the same hammer/pull as before, but shake the bar up and down quickly.

158

Below is another technique that involves dipping the bar. Hammer down on the first note and at the same time, lightly press and immediately release the bar. Play the other notes with a hammer-on/pull-off. Then tap the bar again, and continue.

159

Here is another idea involving dipping the bar. This time, dip the bar as you hammer-on or pull-off each note.

160

Vibrato can also be put on harmonics with the bar. Listen to the cassette and copy the sound.

161

Below, pick the open string and dive. Next, touch the harmonic at the fifth fret (without picking) and release up to pitch. If you have a bar equipped to do so, continue pulling up past the original pitch; then dive again.

162

Experiment with these tricks and see what you can come up with on your own. Use your imagination!

# **RIGHT-HAND FRETTING**

Popularized by Van Halen, right-hand fretting is widely used by most rock guitarists today. Begin the pattern below by hammering your right-hand index (or middle) finger down on the first note. The other notes are all produced by hammer-ons and pull-offs.

You can also use pull-offs, or a combination of hammer-ons and pull-offs in the left hand notes.

In the riff below, sweep up the string with your right-hand first finger after you tap. As you slide it up the neck, pull off to sound the next note.

Right-hand fretting can also be used together with bends. Below, bend the string up two frets, then fret with your right hand while keeping the string bent. Since the string remains bent, it will sound two frets higher than the note fretted with the right hand. For vibrato, use your left hand. The right hand does not move.

      □      □  
**167**      **T** 7,7(9)      12(14)      7,7(9)      12(14)  
**A**  
**B**  
 fingering: 3(2)      RH      3(2)      RH

**Use this technique in the riff below.**

Fretboard diagram for measure 168. The diagram shows a melodic line across six strings. Fingerings are indicated above the strings: T (7, 7), A (7, 7), B (5), T (7, 7), A (12, 14), B (12, 14), T (14), A (9), B (9), T (7), A (7), B (10, 12). Performance instructions include 'P' (pizzicato) and 'H' (harmonics) above specific notes. The RH (right hand) is used for several notes. The left hand fingering '3(2)' appears at the beginning and again after the first note. The right hand fingering '3(2)' appears after the second note, and 'RH' appears at the end.

# **SPEED EXERCISES FOR “INTO THE SPOTLIGHT”**

**Begin each exercise slowly and evenly.**

**169**

**Am**

**T** 12 13 15 15 13 12 12 13 15 15 13 12 .  
**A** 14 14 .  
**B**

fingering: 3 1 2 4 1 4 2 1 etc.

**170**

**Am**

**fingering:** RH 1 3 etc.

171

fingering: 1 3 1 3 3 1 3 1 3 1 3 1 - 1 3

**172**

**Am**

Fretboard diagram for Am chord:

- String 6: Fret 17 (T)
- String 5: Open (A)
- String 4: Fret 20 (T)
- String 3: Fret 17 (A)
- String 2: Fret 19 (A) / (21)
- String 1: Fret 20 (E)

**fingering:** 1 3 1 2

**“Into The Spotlight”** highlights the bar and two handed techniques.

# INTO THE SPOTLIGHT

(Solo #6) 

**Am**

**7**

**fingering:** 3 1 2 4 1 2 1 4 1 3(2) 1 2 1 4 1 3(2)

**1**

**2**

**3** touch at 12th fret

**4** (bar)

**5** etc.

**6**

**7** sweep

**8**

**indefinite point**